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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/726,325	12/01/2000	Charles C. Morehouse	10003484	1034

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EXAMINER

LEWIS, DAVID LEE

ART UNIT

PAPER NUMBER

2673

DATE MAILED: 05/23/2003

10

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/726,325

Applicant(s)
Morehouse

Examiner
David L. Lewis

Art Unit
2673



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on May 2, 2003
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

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DETAILED ACTION

Claim Rejections - 35 U.S.C. § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
2. **Claims 1-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over by O'Donnell, Jr. (6486875 B1) in view of Schiller et al. (2002/0031243) and Stevenson et al. (2002/0054026 A1).**
3. **As in claim 1, O'Donnell, Jr. teaches of an electronic pen for recording motion data relating to use of the pen, figures 1 and 2, comprising: a pen body, figure 1 item 3; a ball mounted in the pen body, figure 1 item 15; a sensor in the pen body, located proximate the ball, for detecting motion of the ball and converting the motion into corresponding electronic signals, figure 1 item 17, column 4 lines 1-15; and a memory in the pen body, electronically coupled to the sensor, for receiving the**

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electronic signals and storing corresponding data related to the motion, **figure 1 item 25**, the data including data points related to positions of the ball and enabling extrapolation to generate lines representing the motion of the ball, **column 4 lines 1-30**. Wherein the combination of directional and distance data from the sensors 17 in contact with ball 15 generate a series of vectors which allow the recording of written information by the pen. The microprocessor 23 is programmed to convert distance and directional data into digital data so that it can plot linear movement incrementally on X and Y axes so that the excursion of the ball 15 during writing is converted into useful data. The memory cartridge 25 is designed to store data as it is created by the pen and processed by the microprocessor 23. Therefore O'Donnell utilizes a series of vectors generated by the pen sensors to plot linear movement incrementally in the X/Y plane, wherein the extrapolation is implemented by the conversion process that converts distance and direction data into digital data that illustrates the hand written data. **However O'Donnell, Jr. is silent as amended** wherein a circuit, electronically coupled to the sensor and the memory for sampling the sensor at a particular rate and controlling transmission of the corresponding transmission of the corresponding electronic signal from the sensor to the memory, the circuit including a timer for determining the particular rate at which the sensor is sampled. **O'Donnel, Jr. teaches however that** microprocessor 23 is programmed achieve simultaneous data capture as a document is created with the pen and provide real time or delayed transmission to the associated computer, column 4 lines 12-15, and further that the memory can be associated with date and time clocks, column 4 lines 32-35. **Schiller et al. teaches of a handwritten**

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information system wherein he teaches of a circuit, electronically coupled to the sensor and the memory for sampling the sensor at a particular rate and controlling transmission of the corresponding transmission of the corresponding electronic signal from the sensor to the memory, the circuit including a timer for determining the particular rate at which the sensor is sampled, **page 4, paragraph 62**, wherein the timestamps are incremental and the frame frequency or sample rate is a settable parameter. **Schiller et al. teaches** of a the details that would have been obvious to the skilled artisan at the time of the invention in view of O'Donnell, Jr.'s real time or delayed transmission of data to the associated computer, including O'Donnell, Jr.'s memory and associated date and time clock means. Further, **Stevenson et al. teaches of** recorded handwritten data synchronized to audio data for transmission of both audio and data to a computer, paragraph 39 and 44, including different sample rates, paragraph 54. O'Donnell, Jr.'s device includes a microphone for this same purpose as taught by Stevenson et al., making said timestamp and sample rate feature and obvious feature for sending audio and handwritten data. **Therefore it would have been obvious to the skilled artisan** to provide for said timestamp and variable sampling as taught by Schiller et al. Or Stevenson et al., in O'Donnell, Jr.'s, for the purpose of facilitating real time or delayed transmission of both audio and handwritten data as taught by O'Donnell, Jr, as found in claim 1.

4. **As in claim 11, O'Donnell, Jr. teaches of** a method for recording motion data relating to use of a pen having a pen body, **figure 1 item 3**, a ball mounted int he pen body, **figure 1 item 15**, a memory,

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figure 1 item 25, and a sensor located proximate the ball, **figure 1 item 17**, comprising: detecting motion of the ball using the sensor, **column 4 lines 1-30**; converting the motion into corresponding electronic signals, **column 4 lines 1-30**; receiving the electronic signals, **column 4 lines 1-30**; and storing in memory, **column 4 lines 1-31**, based upon the electronic signals, corresponding data related to the motion, **column 4 lines 1-31**, the data including data points related to positions of the ball and enabling extrapolation to generate lines representing the motion of the ball, **column 4 lines 1-30**. Wherein the combination of directional and distance data from the sensors 17 in contact with ball 15 generate a series of vectors which allow the recording of written information by the pen. The microprocessor 23 is programmed to convert distance and directional data into digital data so that it can plot linear movement incrementally on X and Y axes so that the excursion of the ball 15 during writing is converted into useful data. The memory cartridge 25 is designed to store data as it is created by the pen and processed by the microprocessor 23. Therefore O'Donnell utilizes a series of vectors generated by the pen sensors to plot linear movement incrementally in the X/Y plane, wherein the extrapolation is implemented by the conversion process that converts distance and direction data into digital data that illustrates the hand written data. **However as amended O'Donnell, Jr. is silent as to** wherein sampling the sensor at a particular rate using circuit electronically coupled to the sensor and to the memory, the circuit including a timer for determining the particular rate at which the sensor is sampled and controlling transmission of the electronic signals from the sensor to the memory using the circuit. **O'Donnell, Jr. teaches however that**

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microprocessor 23 is programmed achieve simultaneous data capture as a document is created with the pen and provide real time or delayed transmission to the associated computer, column 4 lines 12-15, and further that the memory can be associated with date and time clocks, column 4 lines 32-35. **Schiller et al. teaches of** a handwritten information system wherein he teaches of a circuit, electronically coupled to the sensor and the memory for sampling the sensor at a particular rate and controlling transmission of the corresponding transmission of the corresponding electronic signal from the sensor to the memory, the circuit including a timer for determining the particular rate at which the sensor is sampled, **page 4, paragraph 62**, wherein the timestamps are incremental and the frame frequency or sample rate is a settable parameter. **Schiller et al. teaches of** a the details that would have been obvious to the skilled artisan at the time of the invention in view of O'Donnell, Jr.'s real time or delayed transmission of data to the associated computer, including O'Donnell, Jr.'s memory and associated date and time clock means. Further, **Stevenson et al. teaches of** recorded handwritten data synchronized to audio data for transmission of both audio and data to a computer, paragraph 39 and 44, including different sample rates, paragraph 54. O'Donnell, Jr.'s device includes a microphone for this same purpose as taught by Stevenson et al., making said timestamp and sample rate feature and obvious feature for sending audio and handwritten data. **Therefore it would have been obvious to the skilled artisan** to provide for said timestamp and variable sampling as taught by Schiller et al. Or Stevenson et al., in O'Donnell, Jr.'s, for the purpose of facilitating real time or

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delayed transmission of both audio and handwritten data as taught by O'Donnell, Jr, as found in claim 11.

5. **As in claims 2 and 12, O'Donnell, Jr.** teaches of further including a removable ink cartridge, disposed with the pen body, for applying ink to the ball, column 3 lines 60-67, wherein the ink reservoir is as associated with that of conventional ball point pens known for their replaceable ink cartridge. **As in claims 3 and 13, O'Donnell, Jr.** teaches further including a port, located on the pen body and electronically coupled to the memory, for use in transferring the data from the memory to an external device, figure 1 item 27. **As in claims 4 and 14, O'Donnell, Jr.** teaches further including a circuit, electronically coupled to the sensor and the memory, for sampling the sensor at a particular rate and controlling transmission of a sampled electronic signal from the sensor to the memory, figure 1 item 23, column 4 lines 12-15, wherein real time or delayed transmission implies a rate. **As in claims 5 and 15, O'Donnell, Jr.** teaches of further including a module for receiving the data and for converting the data into a visual representation of the motion of the ball, column 3 lines 1-30 **As in claims 6 and 16, O'Donnell, Jr.** teaches of further including a module for storing the visual representation, column 4 lines 48-54. **As in claims 7 and 17, O'Donnell, Jr.** teaches of wherein the sensor includes dual sensors for detecting directions from which orthogonal ball motions can be reconstructed, figure 1 item 17. **As in claims 8 and 18, O'Donnell, Jr.** teaches wherein the memory stores as the data coordinates representing the directions from which the orthogonal ball

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motions can be reconstructed, column 4 lines 23-41. **As in claims 9 and 19, O'Donnell, Jr.** teaches of wherein the memory stores an indication of a set of the motion data and a default location for a start of the corresponding motion, column 4 lines 1-41, wherein said features are inherent to the device as well known in the art. **As in claim 10 and 20, O'Donnell, Jr.** teaches wherein the memory comprises an atomic resolution storage memory, **figure 1 item 25**, wherein said memory is inclusive to all memory known in the art able to facilitate fine resolution memory as with atomic resolution storage.

6. **As in claim 21**, wherein the circuit is capable of varying the rate at which the sensor is sampled based on the motion of the ball, **Schiller teaches** of said ball type device, paragraph 32, and settable frame frequency or sample rate, paragraph 62, wherein the sample is connected to sensor reading from pen motion, further wherein said sampling in real or delayed time, as taught by O'Donnell, inherently includes a correspondence between handwritten movement and sensor sampled data. **As in claim 23, Schiller teaches** of further including the step of changing the rate at which the sensor is sampled based upon the motion of the ball, paragraph 62, last sentence. **As in claim 22, O'Donnell teaches** of a first switch for turning on and off the circuit, **a first switch for turning on and off the circuit, a first power switch for the pen system would have been obvious for the skilled artisan to conserve system power with the pen is not in use, further the handwriting recognition would only be active when the pen touches a writing surface to initiate motion, said contact also**

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would serve as an obvious first switch in addition to a power switch; a second switch for enabling a user to store in the memory a reset indication to start storing data related to the motion of the ball from a default location stored in memory, **column 4 lines 37-41**, said sensor comprising X/Y position sensors, **column 4 lines 8-23, figure 1 items 17**, said timestamp and sample rate as reasoned above in the preceding claims.

Response to Arguments

7. Applicant's arguments filed on 3/17/2003 with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection. See the new rejection over O'Donnell, Jr. in view of Schiller et al. and Stevenson et al.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. **5963195**.
9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **David L. Lewis** whose telephone number is **(703) 306-3026**. The examiner can normally

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be reached on MT and THF from 8 to 5. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached on (703) 305-4938. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.



BIPIN SHALWALA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Examiner: David L. Lewis

May 19, 2003